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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,579	01/28/2005	Yutaka Miyamoto	Ace 12	1367
23474	7590	02/27/2006	EXAMINER	
FLYNN THIEL BOUTELL & TANIS, P.C.			KERNs, KEVIN P	
2026 RAMBLING ROAD			ART UNIT	
KALAMAZOO, MI 49008-1631			PAPER NUMBER	
			1725	
DATE MAILED: 02/27/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/523,579

Applicant(s)

MIYAMOTO ET AL.

Examiner

Kevin P. Kems

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/30/05.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details:

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In this instance, the abstract exceeds 150 words. In addition, "The present invention is a" should be replaced by "A" in the 1st line.

2. The disclosure is objected to because of the following informalities: on page 15, 20th line, replace "melt" with "melted". On page 16, 15th line, replace "word" with "words". Corrections and/or clarifications are required for these and other errors that occur throughout the specification.

Claim Objections

3. Claim 2 is objected to because of the following informalities: in the 6th line, replace "retreats" with "retreat" after "gradually". Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to apparatus claims 1-20 and method claims 21 and 22, these claims are generally written in a narrative format, rendering the claims indefinite. The apparatus claims should be written to distinctly set forth positive, interrelated structural limitations, and the method claims should be written to distinctly set forth positive, active process steps. Also, it is noted that apparatus claims 9, 10, and 18-20 set forth limitations of the two welding sheet members (articles to be worked upon by the apparatus), which do not lend patentable weight to apparatus claims.

With regard to claims 1-3, 5, 6, and 21, it is unclear what is meant by "retreating-shaped portion".

With regard to claims 1, 2, 5, 6, and 21, it is unclear what is meant by "according to extension from".

Claims 3 and 6 recite the limitation "the maximum projecting amount". There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-7 and 14-22 insofar as definite (in view of the 35 USC 112, 2nd paragraph rejections) are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-167673 in view of JP 8-39261 (complete translations of both Japanese documents enclosed with this Office Action).

JP 2000-167673 discloses a butt welding method and apparatus for making a joined part from butting two steel plates of different thicknesses (t1,t2) together and welding via a double pair of electrode members 3 having flat press portions on opposing sides of the steel plates for pressing in the thickness direction, such that upon butt

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welding with electric resistance heat, the end surfaces of the steel plates swell and deform to form a joined part (abstract; paragraphs [0010]-[0042] and [0054] of Japanese translation; and Figures 1-3). JP 2000-167673 does not specifically disclose that the press portions are formed in a (single) pair of electrode members with a "retreating-shaped portion".

However, JP 8-39261 discloses a welding method and apparatus that includes a single pair of electrode members (33,34) that include "retreating-shaped" press portions upon butted plates (11,12) having oblique-shaped end portions (see Figures 3-7, 12, 14, and 17), with the single pair of electrode members also functioning as press portions, which are advantageous for providing welding of oblique-shaped end portions with short welding time and not limiting the type of material and thickness of the plates (abstract; paragraphs [0006]-[0032] of Japanese translation; and Figures 1-7, 12, 14, and 17).

It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify the butt welding method and apparatus for making a joined part from butting two steel plates of different thicknesses, as disclosed by JP 2000-167673, by using the "retreating-shaped" press portions formed in a (single) pair of electrode members, as taught by JP 8-39261, in order to weld oblique-shaped end portions with short welding time and not limiting the type of material and thickness of the plates (JP 8-39261; abstract).

9. Claims 8-13 insofar as definite (in view of the 35 USC 112, 2nd paragraph rejections) are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-

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167673 in view of JP 8-39261, as applied to claim 1 above, and further in view of JP 2000-254785.

JP 2000-167673 (in view of JP 8-39261) disclose and/or suggest the features of claim 1. Neither JP 2000-167673 nor JP 8-39261 specifically discloses the use of block electrodes.

However, JP 2000-254785 discloses a method and equipment for welding a plurality of pressed parts, in which the welding equipment includes a plurality of pressing block electrodes, in the form of split electrodes (3A-3D) that are supported to a support frame 2 of a resistance welding machine, such that the block electrodes are advantageous for uniformly energizing and squeezing the welding joint part to a base metal thickness while applying force to the pressed parts (abstract; and Figures 1 and 2).

It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify the butt welding apparatus for making a joined part from butting two steel plates of different thicknesses, as disclosed by JP 2000-167673, by using the "retreating-shaped" press portions formed in a (single) pair of electrode members, as taught by JP 8-39261, in order to weld oblique-shaped end portions with short welding time and not limiting the type of material and thickness of the plates, and by further providing a plurality of pressing block electrodes, as disclosed by JP 2000-254785, in order to uniformly energize and squeeze the welding joint part to a base metal thickness while applying force to the pressed parts (JP 2000-254785; abstract).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Mecklenborg and Bacroix references are also cited in PTO-892.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kevin P. Kerns whose telephone number is (571) 272-1178. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin P. Kerns *Kevin Kerns 2/15/06*
Primary Examiner
Art Unit 1725

KPK
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February 15, 2006